REVIEW DRAFT

February 6, 1990

VIA TELEFAX

Ms. Johanna Miller
EPA Project Coordinator (T-4-2)
U.S. ENVIRONMENTAL PROTECTION AGENCY
Region IX
580 Chetwood Street
Oakland, CA 94610

Re: Additional Rationale for Selection
of Compounds of Concern in Groundwater

Dear Ms. Miller:

Enclosed please find the data package you requested during our meeting on January 10, 1990. You requested additional data and rationale for the selection of compounds of concern (COCs) at the Montrose site. The enclosed data will supplement previous data and discussion provided to you regarding the distribution of benzene and chloroform in the soil and groundwater at the Montrose site (Hargis + Associates, Inc., 1989a, 1989b, 1990). In addition to the data package, this letter addresses the possibility identified by the U.S. Environmental Protection Agency (EPA) that chloroform detected in the groundwater in the vicinity of the Montrose site originated as a by-product of chloral used to produce DDT at the Montrose facility.

As requested, the following data are provided in the enclosed tables and figures:

Table

Figures

MANUFACTURING PROCESS

According to EPA's comments on the Draft Remedial Action Objectives (RAOs) and General Response Actions (GRAs) and discussions between EPA and Montrose at the subsequent meeting on January 10, 1990, EPA suggests that chloroform may be a reaction by-product of chloral. Chloral was used in the DDT manufacturing process at the Montrose facility. EPA's contractor Metcalf & Eddy, Inc., (M&E) described the theoretical process by which chloroform could form during the reaction of chloral in a basic environment (U.S. EPA, 1989). According to M&E, during the synthesis of DDT, chlorobenzene (MCB) is reacted with chloral in the presence of strong acid. M&E reports that the mixture is then treated with strong base, and

that any residual, unreacted chloral would decompose to chloroform and formate under basic conditions.

As previously stated, Montrose reports that chloral was reacted with an excess of MCB in an acidic environment to produce a mixture of DDT, MCB, sulfuric acid, and by-product chlorobenzene sulfonic acid (Hargis + Associates, Inc., 1989a). According to Montrose, the DDT was separated from the sulfuric acid-chlorobenzene sulfonic acid and was raised to a neutral pH with a dilute, 15 percent caustic soda. The DDT was subsequently washed with water to remove any residual sulfuric acid. According to plant personnel, the raw DDT mixture was periodically sampled and chloral was not detected (Montrose Chemical Company, 1990). Montrose reports that the neutralization process did not constitute a strong base reaction, and therefore chloroform would not be expected to form as a by-product of chloral decomposition.

VADOSE ZONE

Chloral was not detected in any of 85 soil samples collected by Hargis + Associates, Inc. (H+A), during the initial soil and groundwater investigation conducted at the site in 1985 (Hargis + Associates, Inc., 1985, Table 5). Soil samples were collected from monitor well borings from about 5 feet below land surface (bls) to about 70 feet bls. The water table is about 70 feet bls. The location of these borings corresponds to the monitor well borings MW-1 through MW-5 and soil boring S-101. The detection limit for chloral in these soil samples was less than 0.5 milligrams per kilogram (mg/kg). Because chloral was not detected in the initial sampling it was not analyzed for in subsequent sampling rounds.

Chloroform was detected in 14 out of 146 soil samples collected by H+A from soil borings installed on the Montrose property (Table 7). The concentrations of chloroform detected in those samples ranged from 0.4 to

4.0 mg/kg. The average concentration of chloroform in those samples where chloroform was detected is about 1 mg/kg. Chloroform was detected in 19 out of 43 soil samples collected by M&E (Table 7). One out of 19 samples in which chloroform was detected exceeded 1 mg/kg chloroform. The concentation of chlorform for this sample was reported as 72 mg/kg. The detection limits for chloroform in soil samples collected by M&E ranged from less than 0.005 mg/kg to less than 660 mg/kg where the majority of detection limits do not exceed 0.3 mg/kg. Elevated detection limits result from high concentrations of MCB detected in the soil.

GROUNDWATER

Based on analytical results of soil samples collected near the central process area and throughout the property, there is no indication of concentration of chloral or chloroform which could account for the concentration of chloroform in the groundwater. The results of chloral and chloroform in soil samples collected throughout the property do not indicate that there was a source for these compounds in the central process area where the DDT was manufactured. The results of groundwater samples also indicate that the DDT manufacturing area was not a source of chloroform in the groundwater.

Chloral was not detected in groundwater samples collected from the upper Bellflower aquitard during the initial groundwater investigation (Hargis + Associates, Inc., 1985, Table 6). The five monitor wells sampled are located throughout the Montrose property.

The distribution of chloroform in the groundwater in the vicinity of the Montrose property is also not consistent with the distribution that would be expected to occur if the source of chloroform was the DDT manufacturing area. Analytical results from groundwater samples collected from the upper Bellflower aquitard by H+A in recent sampling rounds and reported results from the Del Amo Hazardous Waste Site and the Armco Inc.

Class III solid waste disposal site were compiled (Figure 1; Ecology and Environment, Inc., 1987; BCL Associates, Inc., 1987, Table 9). The distribution of chloroform in groundwater in the vicinity of the Montrose property indicates chloroform in the groundwater may have originated from an off-property source.

Elevated concentrations of chloroform are present in the upper Bellflower aquitard east and northeast of the central process area at concentrations greater than 10,000 micrograms per liter (ug/l) (Figure 1). The maximum concentration of chloroform was detected in monitor well MW-9 located on the McDonnell Douglas C6 facility, located upgradient from the Montrose property. Chloroform was reported at a concentration of 39 ug/l in a groundwater sample collected from monitor well WCC-1 (Woodward-Clyde Consultants, 1988) located further upgradient. Monitor well WCC-1 is located in the northwestern area of the McDonnell Douglas property. Based on the lithologic log and well completion diagram, monitor well WCC-1 is screened at the water table in the upper Bellflower aquitard. The status of the investigation being conducted at the McDonnell Douglas Corporation C6 facility is being evaluated and will be presented in the Regional Hydrogeologic Assessment Report, as per Task 15 of the Consent Order.

Chloroform was also detected in groundwater samples collected upgradient and northeast from the Montrose property at the Trico Industries Property, located at 19706 Normandie Avenue. Groundwater samples collected from two monitor wells installed at the Trico Industries Property reportedly contained concentrations of chloroform in the parts per billion range (U.S. EPA, 1990). The status of the groundwater investigation being conducted at the Trico Industries facility is being evaluated and will be presented in the Regional Hydrogeologic Assessment Report.

Chloroform was detected at a concentration greater than 500 ug/l in monitor well MW-25 located about 2,200 feet downgradient from the Montrose property (Figure 1). The source of chloroform at this location is not known. Chloroform was detected at concentrations ranging from 1 to 116 ug/l in monitor wells installed at the Armco Inc. Class III site (BCL Associates, Inc., 1987). There are no data to indicate that the chloroform detected at monitor well MW-25 is related to the activities at the Montrose property. Chloroform was not detected in groundwater samples collected from monitor wells MW-23, MW-24, and MW-26 located between the Montrose property and monitor well MW-25 (Figure 1).

SURFACE WATER RUNOFF

Chloroform has also been detected in the surface water runoff samples collected immediately downstream from the Jones Chemical Company property located southwest of the Montrose property. Surface water samples were collected by H+A and Brown and Caldwell laboratory personnel during five run-off events from a flume installed at the southeast corner of the Jones Chemical Company property (Figure 3). Chloroform concentrations ranged from 77 to 550 ug/l in these samples. The facility is being investigated by the California Department of Health Services (DHS) and is presently inspected by the DHS's Surveillance and Enforcement Unit (U.S. EPA, 1990). The status of the investigation being conducted at Jones Chemical is being evaluated and will be presented in the Regional Hydrogeologic Assessment Report.

CONCLUSIONS

COCs were identified for soil, groundwater, surface water, and sediment based on an evaluation of the Remedial Investigation (RI) data. Compounds which appear to be related to previous activities at the Montrose facility and those compounds that were detected at concentrations high enough to be of concern were determined to be COCs for each medium. EPA has

indicated that benzene and chloroform should be added to the list of COCs to be evaluated by Montrose in at least one of the media at the Montrose site. Inclusion of benzene and chloroform as COCs in the media being investigated at the Montrose site is not warranted based on the empirical and analytical data. This conclusion is based on an evaluation of the composition of the compounds and the manufacturing process used to produce DDT at the Montrose facility, and the concentrations and distribution of benzene and chloroform in the on-property soil, groundwater, and surface water runoff samples.

Please review the enclosed material and provide us with your comments at your convenience. If you have any questions or require further discussion, please contact us.

Sincerely,

HARGIS + ASSOCIATES, INC.

J. David Mohrbacher
Project Manager

Sarah L. Raker
RI Task Manager

SLR:tlm

Enclosure

miller4.218

cc: Mr. Dan M. Greeno
Karl S. Lytz, Esq.
Allan G. Zabel, Esq.
Mr. John P. Biddar
Mr. Eric Wetzstein, PRC

REVIEW DRAFT

REFERENCES CITED

BCL Associates, Inc., 1987. Royal Boulevard Site Characterization and Groundwater Analysis, Volume 1. Prepared for Armco Environmental Engineering, Armco Inc; December 15, 1987.

Ecology and Environment, Inc., 1989. CERCLA Expanded Site Inspection, Del Amo, Del Amo Boulevard/Torrance Boulevard, Torrance, California, Los Angeles County. Prepared for U.S. Environmental Protection Agency (EPA), Region IX; June 30, 1989.

Hargis + Associates, Inc., 1985. Results of On-Site Groundwater and Soil Sampling, Montrose Site, Torrance, California. Prepared for Montrose Chemical Corporation; August 28, 1985.

_____, 1989a. Letter addressed to EPA regarding Transmittal of the Revised "Excerpt from Chapter 2 Draft Feasibility Study Report": Deliverable Specified in Task 1 and 2 of the Feasibility Study; November 10, 1989.

_____, 1989b. Letter addressed to EPA regarding Rationale for Selection of Compounds of Concern in Groundwater; December 20, 1989.

_____, 1989c. Raw Analytical Results, Groundwater Sampling Round, Part 2 RIW. June 1, 1989.

_____, 1990. Letter addressed to EPA regarding Transmittal of Non-Project Monitor Well Completion Data and Soil Boring Location Map, Montrose Project; January 3, 1990.

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_____, 1990. Personal communication with Sarah Raker, Hargis + Associates, Inc., and transmittal of meeting notes from South Bay Sites Interagency Meeting held December 12, 1989. January 24, 1990.

Woodward-Clyde Consultants, 1988. Final Report on Phase II of the Subsurface Investigation at Tanks 19T and 20T at the C6 Facility, Douglas Aircraft Company. May 10, 1988.

REPORT

TRUESDAIL LABORATORIES, INC.

CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH — DEVELOPMENT — TESTING

14201 FRANKLIN AVENUE
TUSTIN, CALIFORNIA 92680
AREA CODE 714 • 730-6239
AREA CODE 213 • 225-1564
CABLE: TRUELABS

CLIENT **Douglas Aircraft Company**
Internal Mail Code 211-40
3855 Lakewood Blvd.
Long Beach, California 90846
SAMPLE Attention: Daniel Palacios
MW-19
P.O. No.: T & M 23465C

DATE May 3, 1990

RECEIVED April 9, 1990

LABORATORY NO. 36513-2

INVESTIGATION

Purgeable Organics (Volatiles) by GC/MS (EPA 624)
Gas Chromatography - Mass Spectrometry

RESULTS

Constituent	Detection* Limit (ug/l)	Concentration** (Micrograms/Liter)
Acetone	2.0	ND
Benzene	2.0	ND
Bromodichloromethane	2.0	ND
Bromoform	2.0	ND
Bromomethane	2.0	ND
2-Butanone	2.0	ND
Carbon Disulfide	2.0	ND
Carbon Tetrachloride	2.0	ND
Chlorobenzene	2.0	ND
Chloroethane	2.0	ND
2-Chlorethyl vinyl ether	2.0	ND
Chloroform	2.0	88.6
Chloromethane	2.0	ND
Dibromochloromethane	2.0	ND
1,1-Dichloroethane	2.0	ND
1,2-Dichloroethane	2.0	ND
1,1-Dichloroethene	2.0	ND
trans-1,2-Dichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND

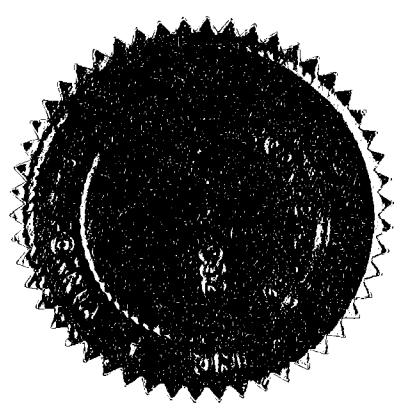
* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Constituent	Detection* Limit (ug/l)	Concentration** (Micrograms/Liter)
cis-1,3-Dichloropropene	2.0	ND
trans-1,3-Dichloropropene	2.0	ND
Ethyl Benzene	2.0	ND
2-Hexanone	2.0	ND
4-Methyl-2-pentanone	2.0	ND
Methylene Chloride	2.0	ND
Styrene	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
Tetrachloroethene	2.0	ND
Toluene	2.0	ND
1,1,1-Trichloroethane	2.0	ND
1,1,2-Trichloroethane	2.0	ND
Trichloroethene	2.0	30.1
Trichlorofluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Xylenes	2.0	ND

* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.



Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Gregory W. Everett, Project Mgr.
Industrial Waste

REPORT

TRUESDAIL LABORATORIES, INC.

CHEMISTS - MICROBIOLOGISTS - ENGINEERS
RESEARCH — DEVELOPMENT — TESTING

14201 FRANKLIN AVENUE
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CABLE: TRUELABS

CLIENT **Douglas Aircraft Company**
Internal Mail Code 211-40
3855 Lakewood Blvd.
Long Beach, California 90846
SAMPLE Attention: Daniel Palacios
MW-18
P.O. No.: T & M 23465C

DATE May 3, 1990
RECEIVED April 9, 1990
LABORATORY NO. 36513-1

INVESTIGATION

Purgeable Organics (Volatiles) by GC/MS (EPA 624)
Gas Chromatography - Mass Spectrometry

RESULTS

Constituent	Detection* Limit (ug/l)	Concentration** (Micrograms/Liter)
Acetone	2.0	ND
Benzene	2.0	ND
Bromodichloromethane	2.0	ND
Bromoform	2.0	ND
Bromomethane	2.0	ND
2-Butanone	2.0	ND
Carbon Disulfide	2.0	ND
Carbon Tetrachloride	2.0	ND
Chlorobenzene	2.0	ND
Chloroethane	2.0	ND
2-Chlorethyl vinyl ether	2.0	ND
Chloroform	2.0	157
Chloromethane	2.0	ND
Dibromochloromethane	2.0	ND
1,1-Dichloroethane	2.0	ND
1,2-Dichloroethane	2.0	ND
1,1-Dichloroethene	2.0	25.1
trans-1,2-Dichloroethene	2.0	ND
1,2-Dichloropropane	2.0	ND

* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Constituent	Detection* Limit (ug/l)	Concentration** (Micrograms/Liter)
cis-1,3-Dichloropropene	2.0	ND
trans-1,3-Dichloropropene	2.0	ND
Ethyl Benzene	2.0	ND
2-Hexanone	2.0	ND
4-Methyl-2-pentanone	2.0	ND
Methylene Chloride	2.0	ND
Styrene	2.0	ND
1,1,2,2-Tetrachloroethane	2.0	ND
Tetrachloroethene	2.0	ND
Toluene	2.0	ND
1,1,1-Trichloroethane	2.0	2.33
1,1,2-Trichloroethane	2.0	ND
Trichloroethene	2.0	1,050
Trichlorofluoromethane	2.0	ND
Vinyl Chloride	2.0	ND
Xylenes	2.0	ND

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Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Gregory W. Everett, Project Mgr.
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CLIENT **Douglas Aircraft Company**
3855 Lakewood Boulevard
Long Beach, California 90846
Attention: Jerry Topp, M/C 211-40

DATE May 25, 1989

RECEIVED May 12, 1989

SAMPLE **Groundwater - MW-9**
P.O. No.: T & M 23465-C

LABORATORY NO 32640-2

INVESTIGATION

Purgeable Organics (Volatiles) by GC/MS (EPA 624)
Gas Chromatography - Mass Spectrometry

RESULTS

Constituent	Approximate Detection Limit*	Concentration** (Micrograms/Liter)
Acetone	5.0 ug/l	ND
Benzene	100 ug/l	290
Bromodichloromethane	5.0 ug/l	ND
Bromoform	5.0 ug/l	ND
Bromomethane	5.0 ug/l	ND
2-Butanone	5.0 ug/l	ND
Carbon Disulfide	5.0 ug/l	ND
Carbon Tetrachloride	100 ug/l	120
Chlorobenzene	100 ug/l	179,000
Chloroethane	5.0 ug/l	ND
2-Chlorethyvinyl ether	5.0 ug/l	ND
Chloroform	100 ug/l	74,000
Chloromethane	5.0 ug/l	ND
Dibromochloromethane	5.0 ug/l	ND
1,1-Dichloroethane	5.0 ug/l	ND
1,2-Dichloroethane	5.0 ug/l	ND
1,1-Dichloroethene	5.0 ug/l	ND
trans-1,2-Dichloroethene	5.0 ug/l	ND
1,2-Dichloropropane	5.0 ug/l	ND
cis-1,3-Dichloropropene	5.0 ug/l	ND
trans-1,3-Dichloropropene	5.0 ug/l	ND

* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Constituent	Approximate Detection Limit*	Concentration** Micrograms/Liter
Ethyl Benzene	5.0 ug/l	ND
2-Hexanone	5.0 ug/l	ND
4-Methyl-2-pentanone	5.0 ug/l	ND
Methylene Chloride	5.0 ug/l	85
Styrene	5.0 ug/l	ND
1,1,2,2-Tetrachloroethane	5.0 ug/l	ND
Tetrachloroethene	5.0 ug/l	ND
Toluene	5.0 ug/l	ND
1,1,1-Trichloroethane	5.0 ug/l	ND
1,1,2-Trichloroethane	5.0 ug/l	ND
Trichloroethene	5.0 ug/l	ND
Trichlorofluoromethane	5.0 ug/l	ND
Vinyl Chloride	5.0 ug/l	ND
Xylenes	5.0 ug/l	ND

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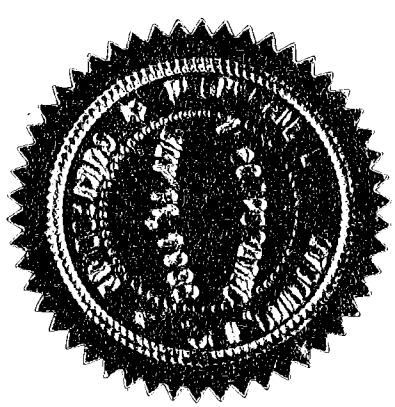

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Luis Perez, Supervisor
Industrial Waste

REPORT

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CLIENT **Douglas Aircraft Company**
3855 Lakewood Boulevard
Long Beach, California 90846
Attention: Jerry Topp, M/C 211-40

DATE May 25, 1989

RECEIVED May 12, 1989

SAMPLE **Groundwater - MW-8**
P.O. No.: T & M 23465-C

LABORATORY NO. 32640-1

INVESTIGATION

Chlorinated Pesticides/PCB's by GC-EDC (EPA 608)

RESULTS

Constituent	Approximate Detection Limit*	Concentration (Micrograms/Liter)**
Aldrin	0.01 ug/l	ND
alpha-BHC	0.01 ug/l	ND
beta-BHC	0.01 ug/l	ND
delta-BHC	0.01 ug/l	ND
gamma-BHC (Lindane)	0.01 ug/l	ND
Chlorodane	0.05 ug/l	ND
4,4-DDD	0.02 ug/l	ND
4-4'DDE	0.02 ug/l	ND
4-4'DDT	0.02 ug/l	ND
Dieldrin	0.05 ug/l	ND
Endosulfan I (alpha)	0.01 ug/l	ND
Endosulfan II (beta)	0.01 ug/l	ND
Endosulfan sulfate	0.05 ug/l	ND
Endrin	0.05 ug/l	ND
Endrin aldehyde	0.05 ug/l	ND
Heptachlor	0.02 ug/l	ND
Heptachlor epoxide	0.10 ug/l	ND
Toxaphene	0.50 ug/l	ND

* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Constituent	Approximate Detection Limit*	Concentration (Micrograms/Liter)**
PCB-1016	0.20 ug/l	ND
PCB-1221	0.20 ug/l	ND
PCB-1232	0.20 ug/l	ND
PCB-1242	0.20 ug/l	ND
PCB-1248	0.20 ug/l	ND
PCB-1254	0.20 ug/l	ND
PCB-1260	0.20 ug/l	ND

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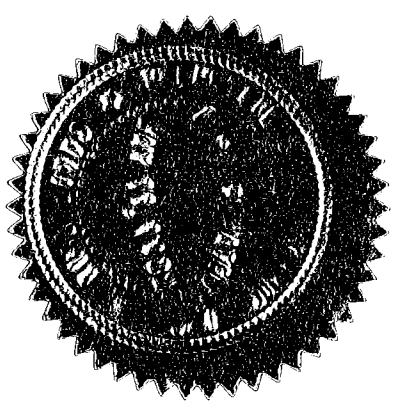

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Industrial Waste

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Gas Chromatography - Mass Spectrometry

RESULTS

Constituent	Approximate Detection Limit*	Concentration** (Micrograms/Liter)
Acetone	5.0 ug/l	ND
Benzene	5.0 ug/l	ND
Bromodichloromethane	5.0 ug/l	ND
Bromoform	5.0 ug/l	ND
Bromomethane	5.0 ug/l	ND
2-Butanone	5.0 ug/l	ND
Carbon Disulfide	5.0 ug/l	ND
Carbon Tetrachloride	5.0 ug/l	2.3
Chlorobenzene	5.0 ug/l	6.3
Chloroethane	5.0 ug/l	ND
2-Chlorethyvinyl ether	5.0 ug/l	ND
Chloroform	5.0 ug/l	ND
Chloromethane	5.0 ug/l	ND
Dibromochloromethane	5.0 ug/l	ND
1,1-Dichloroethane	5.0 ug/l	ND
1,2-Dichloroethane	5.0 ug/l	ND
1,1-Dichloroethene	5.0 ug/l	ND
trans-1,2-Dichloroethene	5.0 ug/l	ND
1,2-Dichloropropane	5.0 ug/l	ND
cis-1,3-Dichloropropene	5.0 ug/l	ND
trans-1,3-Dichloropropene	5.0 ug/l	ND

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** ND = Not detected, below detection limit.

Constituent	Approximate Detection Limit*	Concentration** Micrograms/Liter
Ethyl Benzene	5.0 ug/l	ND
2-Hexanone	5.0 ug/l	ND
4-Methyl-2-pentanone	5.0 ug/l	ND
Methylene Chloride	5.0 ug/l	ND
Styrene	5.0 ug/l	ND
1,1,2,2-Tetrachloroethane	5.0 ug/l	ND
Tetrachloroethene	5.0 ug/l	ND
Toluene	5.0 ug/l	ND
1,1,1-Trichloroethane	5.0 ug/l	ND
1,1,2-Trichloroethane	5.0 ug/l	ND
Trichloroethene	5.0 ug/l	ND
Trichlorofluoromethane	5.0 ug/l	ND
Vinyl Chloride	5.0 ug/l	ND
Xylenes	5.0 ug/l	ND

* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Luis Perez, Supervisor
Industrial Waste

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RESULTS

Constituent	Approximate Detection Limit*	Concentration (Micrograms/Liter)**
Aldrin	0.01 ug/l	ND
alpha-BHC	0.01 ug/l	ND
beta-BHC	0.01 ug/l	ND
delta-BHC	0.01 ug/l	ND
gamma-BHC (Lindane)	0.01 ug/l	ND
Chlorodane	0.05 ug/l	ND
4,4-DDD	0.02 ug/l	ND
4-4'DDE	0.02 ug/l	ND
4-4'DDT	0.02 ug/l	ND
Dieldrin	0.05 ug/l	ND
Endosulfan I (alpha)	0.01 ug/l	ND
Endosulfan II (beta)	0.01 ug/l	ND
Endosulfan sulfate	0.05 ug/l	ND
Endrin	0.05 ug/l	ND
Endrin aldehyde	0.05 ug/l	ND
Heptachlor	0.02 ug/l	ND
Heptachlor epoxide	0.10 ug/l	ND
Toxaphene	0.50 ug/l	ND

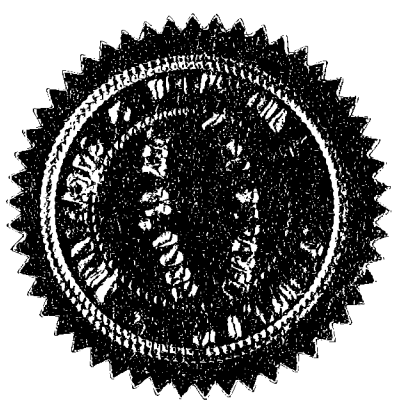
* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.

Constituent	Approximate Detection Limit*	Concentration (Micrograms/Liter)**
PCB-1016	0.20 ug/l	ND
PCB-1221	0.20 ug/l	ND
PCB-1232	0.20 ug/l	ND
PCB-1242	0.20 ug/l	ND
PCB-1248	0.20 ug/l	ND
PCB-1254	0.20 ug/l	ND
PCB-1260	0.20 ug/l	ND

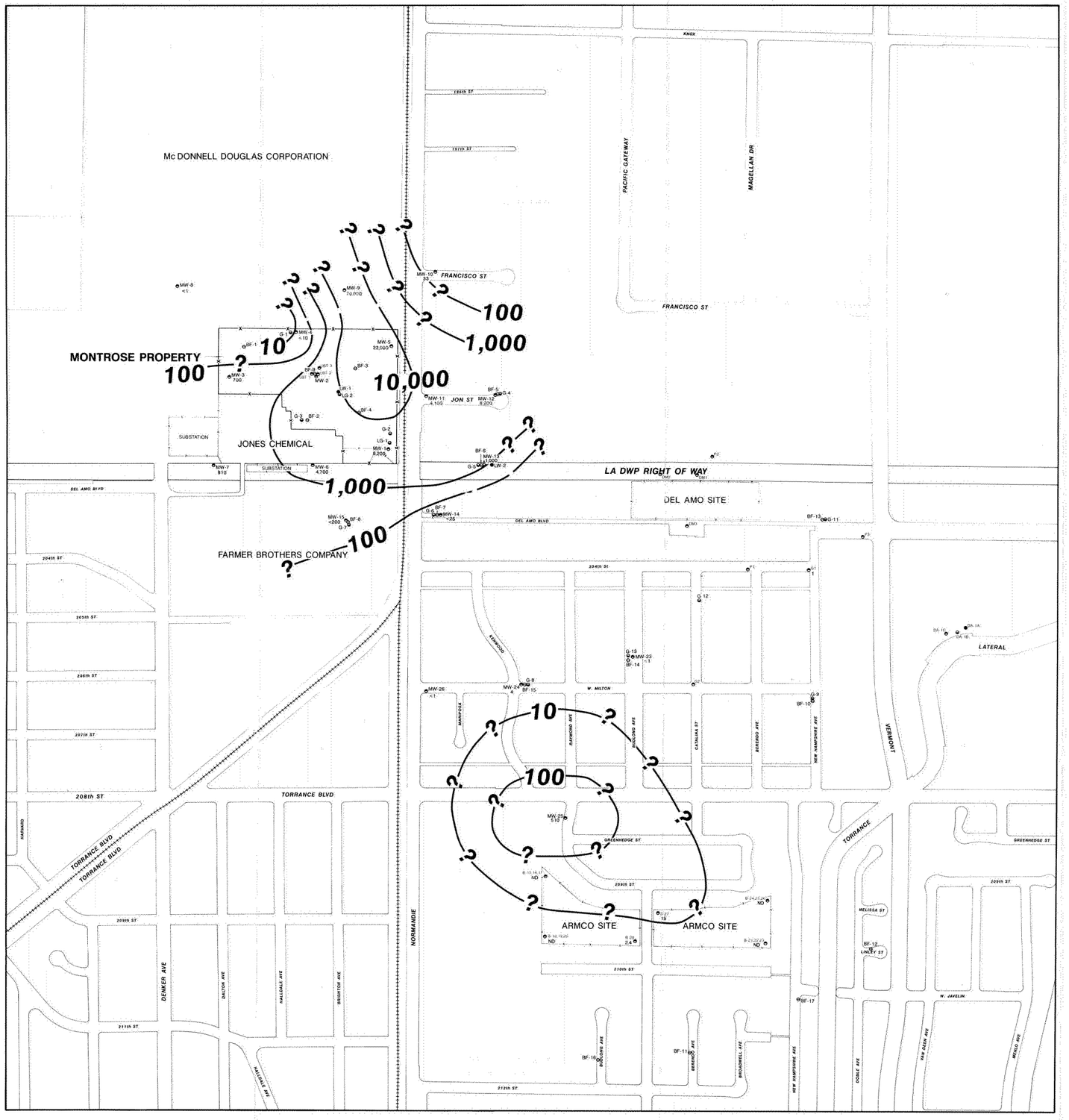
* Detection limits may vary with the type of sample and with the concentrations of other species present.

** ND = Not detected, below detection limit.



Respectfully submitted,
TRUESDAIL LABORATORIES, INC.

Luis Perez, Supervisor
Industrial Waste



EXPLANATION

MONITOR WELLS
CONSTRUCTED BY HARGIS + ASSOCIATES, INC.

MW-1: UPPER BELLFLOWER AQUITARD
BF-1: BELLFLOWER SAND
G-1: GAGE AQUIFER
LW-1: LYNWOOD AQUIFER
B-28: INDICATES CONSTRUCTED BY OTHERS

MW-6 4,730: CONCENTRATION OF CHLOROFORM IN MICROGRAMS PER LITER. < OR ND = NONE DETECTED

100 ? : CONTOUR OF EQUAL CONCENTRATION OF CHLOROFORM DETECTED IN MICROGRAMS PER LITER. DASHED WHERE APPROXIMATE, QUERIED WHERE INFERRED.

NOTE: BASE MAP FROM LOS ANGELES COUNTY TAX ASSESSORS STREET MAPS.

N

REVIEW DRAFT

0 200 400
FEET

MONTROSE SITE AND VICINITY
TORRANCE, CALIFORNIA

CHLOROFORM CONCENTRATIONS
UPPER BELLFLOWER AQUITARD

HARGIS + ASSOCIATES, INC.

PREPARED BY

FIGURE 1

BOE-C6-0178397

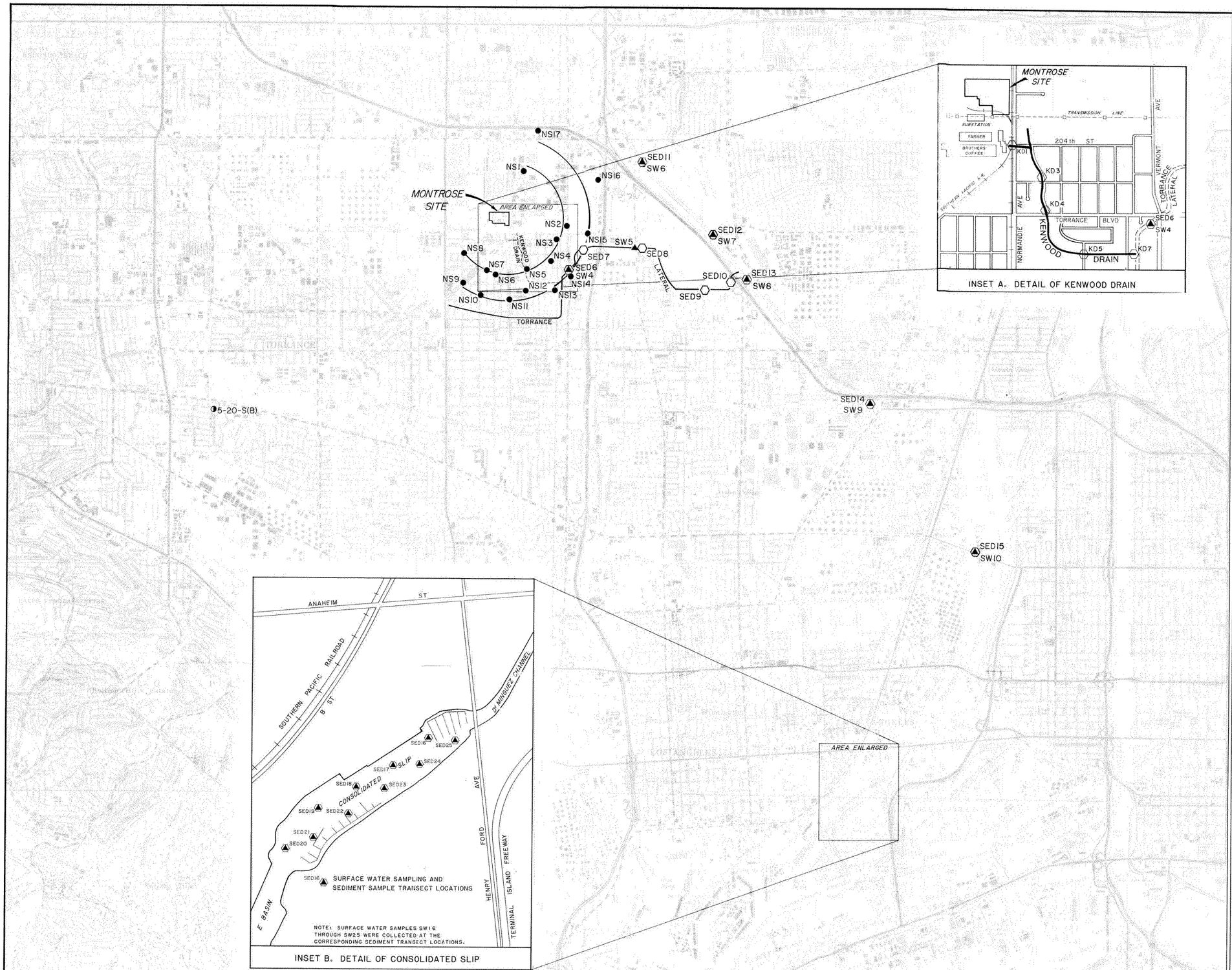


FIGURE 2

BOE-C6-0178398

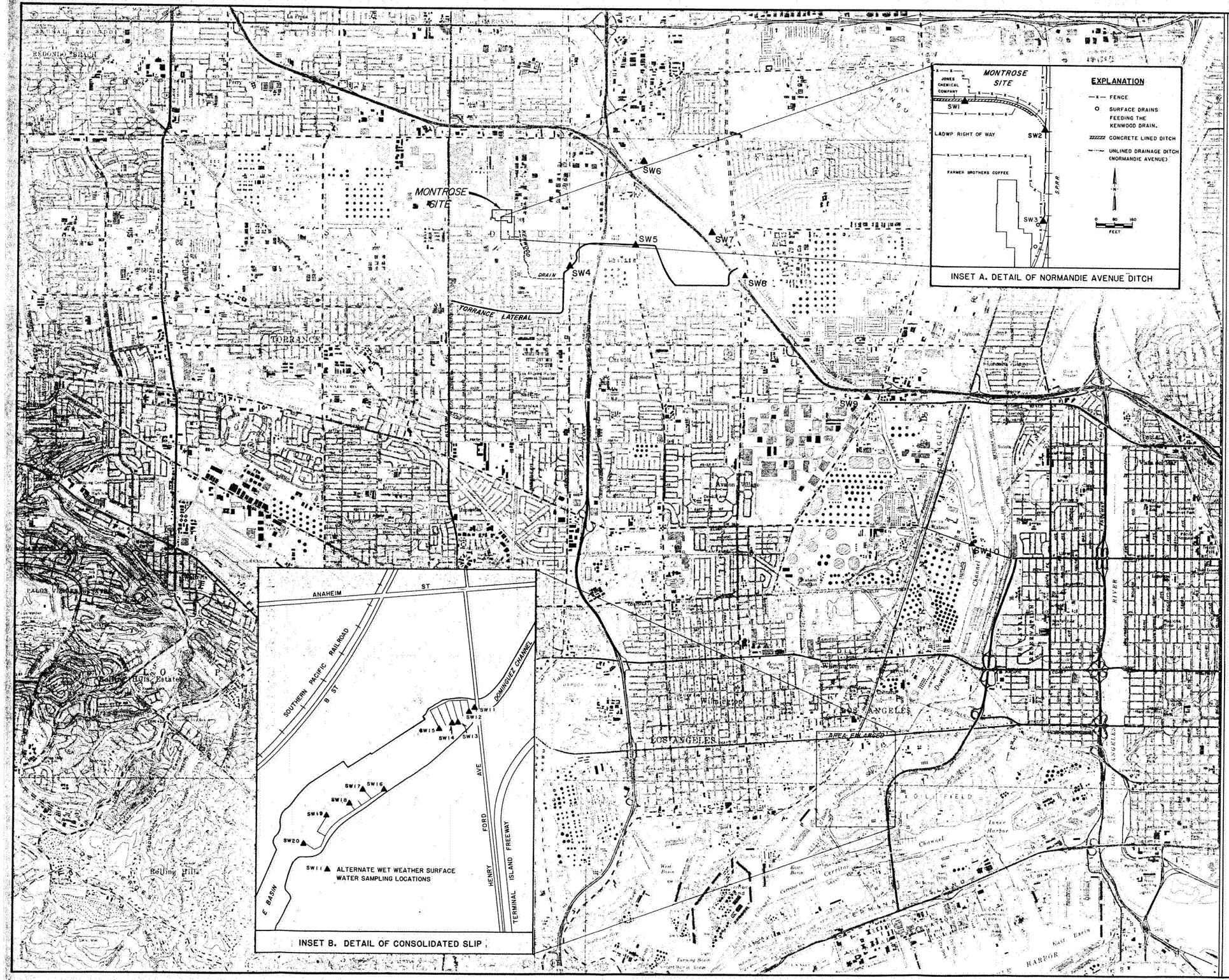


FIGURE 3